

(b) Amendments to the claims:

A detailed listing of the claims is provided which replaces all earlier versions.

1. (Currently Amended) A mesostructured film comprising amphiphilic molecular assemblies and a compound containing as a main component ~~an inorganic material~~ silica formed on the peripheries of the molecular assemblies regularly arranged three-dimensionally, the mesostructured film being formed on a substrate, wherein:

a local periodic structure in ~~a an optional~~ section in parallel with the substrate of the film has a 6-fold axis perpendicular to a film plane; and

symmetric reflective surfaces of the structure including the 6-fold axis are facing in the same direction across the entire film.

2. (Currently Amended) A mesostructured film according to claim 1, wherein the amphiphilic molecular assemblies comprise surfactant micelles containing two or more kinds of nonionic surfactants ~~of different in-structure~~ molecular length.

3. (Currently Amended) A mesostructured film according to claim 2, wherein the two or more kinds of nonionic surfactants ~~of different in-structure~~ molecular length comprise nonionic surfactants containing polyethylene oxide as a hydrophilic group.

4. (Currently Amended) A mesostructured film according to claim 3, wherein the two or more kinds of nonionic surfactants ~~of different in-structure~~ molecular

length respectively have identical hydrophobic portions and hydrophilic polyethylene oxide portions different in molecular chain length.

5. (Currently Amended) A mesoporous material film comprising holes regularly arranged three-dimensionally and silica ~~an inorganic material~~ as a main component, the mesoporous material film being formed on a substrate, wherein:

a local periodic structure in ~~an optional~~ a section of the film in parallel with the substrate has a 6-fold axis perpendicular to a film plane; and

symmetric reflective surfaces of the structure including the 6-fold axis are facing in the same direction across the entire film.

6. (Withdrawn - Currently Amended) A production method for a mesostructured film comprising the steps of:

preparing a substrate having an anisotropic surface;

preparing a reactant solution containing two or more ~~kinds of~~ nonionic surfactants of different molecular length and ~~an inorganic material~~ a silica precursor; and

retaining the substrate having an anisotropic surface in the reactant solution.

7. (Withdrawn - Currently Amended) A production method for a mesostructured film comprising the steps of:

preparing a substrate having an anisotropic surface;

preparing a reactant solution containing two or more ~~kinds of~~ nonionic surfactants of different molecular length and ~~an inorganic material~~ a silica precursor; and

coating the reactant solution on the substrate having an anisotropic surface.

8. (Withdrawn - Currently Amended) A production method for a mesostructured film comprising the steps of:

- preparing a substrate having an anisotropic surface;
- preparing a reactant solution containing two or more ~~kinds of~~ nonionic surfactants of different molecular length and a silica an inorganic material- precursor; and
- applying the reactant solution onto the substrate having an anisotropic surface.

9. (Withdrawn) A production method for a mesostructured film according to claim 7, wherein the reactant solution is applied through a method selected from the group consisting of dip coating, spin coating, and mist coating.

10. (Withdrawn) A production method for a mesostructured film according to claim 8, wherein the reactant solution is provided through a method selected from the group consisting of soft lithography, an inkjet method, and pen lithography.

11. (Withdrawn) A production method for a mesostructured film according to claim 6, wherein the surface is made anisotropic through rubbing treatment.

12. (Withdrawn) A production method for a mesostructured film according to claim 6, wherein the anisotropic surface of the substrate is formed of a Langmuir-Blodgett film of a polymer compound.

13. (Withdrawn) A production method for a mesoporous material film, comprising the step of removing the surfactants from the mesostructured film according to claim 6, thereby forming pores.

14. (Original) X-ray optical device comprising the mesostructured film according to claim 1.

15. (Currently Amended) A structure comprising spherical assemblies of amphiphilic molecules and a compound containing ~~an inorganic material~~ silica formed on the peripheries of the assemblies, wherein:

the amphiphilic molecular assemblies is regularly arranged across the entire area of the structure; and

the arrangement of the amphiphilic molecular assemblies has a 6-fold axis.

16. (Withdrawn - Currently Amended) A production method for a structure comprising spherical assemblies of amphiphilic molecules and a compound containing ~~an inorganic material~~ silica formed on the peripheries of the assemblies, the production method comprising the steps of:

preparing a substrate having an anisotropic molecular orientation on its surface and a solution containing ~~an inorganic~~ a silica compound and amphiphilic molecules; and

retaining the substrate in the solution, and thereby forming the structure on the substrate.

17. (New) A mesostructured film comprising: amphiphilic molecular assemblies arranged three-dimensionally in the mesostructured film on a substrate, wherein a local structure of the film has a 6-fold symmetry axis perpendicular to the film plane, and planes of mirror symmetry containing the symmetry axis are substantially parallel throughout the film.

18. (New) A mesostructured film having mesopores, wherein a local structure of the film has a 6-fold symmetry axis perpendicular to the film plane, and planes of mirror symmetry containing the symmetry axis are parallel throughout the film.